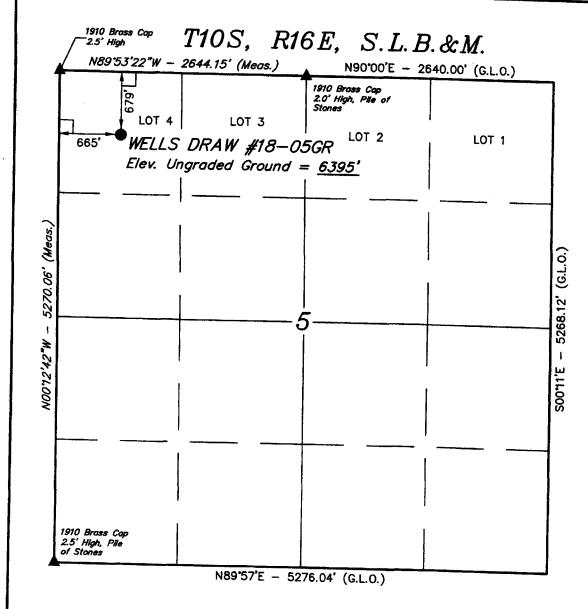
Form 3160-3 (February 2005) UNITED STATE	February 2005) UNITED STATES				
DEPARTMENT OF THE BUREAU OF LAND MAI	INTERIOR		5. Lease Serial No. UTU 74831		
APPLICATION FOR PERMIT TO			6. If Indian, Allotee or Tribe Name		
la. Type of work:	ER		7 If Unit or CA Agreement, Name and No.		
lb. Type of Well: Oil Well Gas Well Other	✓ Single Zone Multi	ple Zone	8. Lease Name and Wells Draw 1		
2. Name of Operator EOG RESOURCES, INC			9. API Well No.	113-33	354b
3a. Address 1060 East Highway 40 Vernal, UT 84078	3b. Phone No. (include area code) 303-824-5526		10. Field and Pool, or	Exploratory s/Green River	Wilde
4. Location of Well (Report location clearly and in accordance with a. At surface 5721030 679 FNL 665 FWL Lot 4 (8W8W)	11. Sec., T. R. M. or E	Blk. and Survey o	r Area		
At proposed prod. zone Same 44254944 39,		1427	Section 5, T10	S, R16E S.L.B	.&M
14. Distance in miles and direction from nearest town or post office*  18 Miles South of Myton, UT			12. County or Parish  Duchesne	13. S	State UT
location to nearest property or lease line, ft.			ng Unit dedicated to this	well	
(Also to nearest drig. unit line, if any) 660 Drilling Line  18. Distance from proposed location*	to the state of th				
to nearest well, drilling, completed, applied for, on this lease, ft.	5850	NM 2			
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6395 GL	22. Approximate date work will star	rt*	23. Estimated duration 30 Days		
	24. Attachments				
<ol> <li>The following, completed in accordance with the requirements of Onsho</li> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest System SUPO must be filed with the appropriate Forest Service Office).</li> </ol>	4. Bond to cover the Item 20 above). Lands, the 5. Operator certific	ne operation	is form:  ns unless covered by an  ormation and/or plans as	-	·
25. Signature Mary a. Maylar	Name (Printed/Typed) Mary A. Maestas			Date <b>02/14/200</b>	7
Title REGULATORY ASSISTANT					
Approved by Aggrature	Name (Printed/Typed)  BRADLEY (			Date 07	21-07
Title	Offenvironmental	MANAGI	ER	_	
Application approval does not warrant or certify that the applicant hold conduct operations thereon. Conditions of approval, if any, are attached.	s legal or equitable title to those right	s in the sub	ject lease which would en	ntitle the applica	ntto
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a cr States any false, fictitious or fraudulent statements or representations as	rime for any person knowingly and w to any matter within its jurisdiction.	villfully to m	ake to any department o	r agency of the	United

\*(Instructions on page 2)

Federal Approval of this Action is Necessia.

RECEIVED FEB 1 5 2007

DIV. OF OIL, GAS & MINING



#### LEGEND:

= 90° SYMBOL

= PROPOSED WELL HEAD.

= SECTION CORNERS LOCATED.

#### (NAD 83)

LATITUDE = 39'58'41.78" (39.978272)

LONGITUDE = 110°09'00.90" (110.150250)

(NAD 27)

LATITUDE = 39.58,41.91, (39.978308)

LONGITUDE = 110°08'58.35" (110.149542)

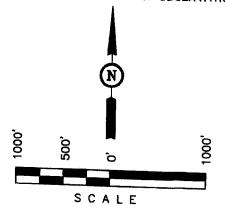
# EOG RESOURCES, INC.

Well location, WELLS DRAW #18-05GR, located as shown in LOT 4 of Section 5, T10S, R16E, S.L.B.&M., Duchesne County, Utah.

#### BASIS OF ELEVATION

SPOT ELEVATION AT THE NORTHWEST CORNER OF SECTION 3, T11S, R17E, S.L.B.&M. TAKEN FROM THE WILKIN RIDGE QUADRANGLE, UTAH, DUCHESNE COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY, SAID ELEVATION IS MARKED AS BEING 7047 FEET. BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.

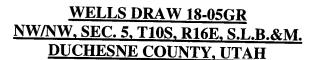


CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOUT AS PREAM FIELD NOTES OF ACTUAL SURVEYS BY ME OR UND SUPERVISION AND THAT THE SAME OF THIS AS 1340 BEST OF MY KNOWLEDGE AND BE

UINTAH ENGINEERING & LAND SURVEYING 85 SOUTH 200 EAST VERNAL, UTAH 84078

(435)	789-1017	
SCALE 1" = 1000'	DATE SURVEYED: 09-28-06	DATE DRAWN: 10-03-06
PARTY T.A. E.D. S.L.	REFERENCES G.L.O. PLAT FILE EOG RESOURCES, INC.	
WEATHER WARM		



# 1. & 2. ESTIMATED TOPS & ANTICIPATED OIL, GAS, & WATER ZONES:

FORMATION	TVD-RKB (ft)	Objective	Lithology	
Uinta FM	18			
Green River FM	1,345			
Mahogany Oil Shale Bed	2,535			Oil
Garden Gulch MBR	3,295	Secondary		Oil / Gas
Middle Carb Bed	3,490			- J.17 GG5
Douglas Creek MBR	4,235	Primary		Oil / Gas
Castle Peak MBR	5,100	Secondary		Oil / Gas
Uteland Butte MBR	5,565	Secondary		Oil / Gas
Wasatch	5,735			1 3117 GGG
TD	5,850			

EST. TD: 5,850' or 200' ± below Wasatch Top

**Anticipated BHP: 2,890 Psig** 

- 1. Fresh Waters may exist in the upper, approximately 1,000 ft  $\pm$  of the Green River Formation, with top at about 2,000 ft  $\pm$ .
- 2. Cement isolation is installed to surface of the well isolating all zones by cement.
- 3. PRESSURE CONTROL EQUIPMENT: Production Hole 5,000 Psig BOP Schematic Diagram attached.

#### 4. **CASING PROGRAM:**

CASING	<u>Hole</u> Size	<u>Length</u>	Size	<u>WEIGHT</u>	<u>Grade</u>	Thread	Rating Collapse	<u>Factor</u> <u>Burst</u>	Tensile
Conductor	17 1/2"	0 45'	13 3/8"	48.0#	H-40	STC	770 PSI	1730 PSI	322,000#
Surface	12 1/4"	Surface- 500' KB±	9-5/8"	36.0#	J-55	STC	2020 PSI	3520 Psi	394,000#
Production	7-7/8"	Surface - TD	4-1/2"	11.6#	J-55	LTC	4960 PSI	5350 Psi	162,000#

All casing will be new or inspected.



#### WELLS DRAW 18-05GR NW/NW, SEC. 5, T10S, R16E, S.L.B.&M. DUCHESNE COUNTY, UTAH

#### 5. Float Equipment:

#### Surface Hole Procedure (0 - 500' ± Below GL):

Guide Shoe

Insert Float Collar (PDC drillable)

Centralizers: 1 - 5-10' above shoe, every collar for next 3 joints (4 total).

#### **Production Hole Procedure (500' ± - TD):**

Float shoe, 1 joint casing, float collar and balance of casing to surface.  $4-\frac{1}{2}$ ", 11.6#, J-55 or equivalent marker collars or short casing joints to be placed 400' above top of Garden Gulch. Centralizers to be placed 5' above shoe on joint #1, top of joint #2, and every 2nd joint to 400' above Garden Gulch top. (15± total). Thread lock float shoe, top and bottom of float collar, and top of  $2^{nd}$  joint.

#### 6. **MUD PROGRAM**:

#### Surface Hole Procedure $(0 - 500' \pm \text{below GL})$ :

Air/air mist or aerated water

#### Production Hole Procedure (500' $\pm$ - TD):

Anticipated mud weight 9.0 - 9.5 ppg depending on actual wellbore condition encountered while drilling.

A closed mud system will be utilized. A bentonite gelled water mud system will be used to control viscosity w/PHPA polymer used for supplemental viscosity and clay encapsulation/inhibition. Water loss will be maintained at <15cc's using white starch or PAC. Bactericides will be used as needed. Anticipated pH will range from 9.0-10.0. Mud weight will be adjusted as necessary for well control. Deflocculants/thinners will be used as necessary to maintain mud quality. LCM sweeps will be utilized as necessary to control lost circulation and mud loss. CO2 contamination, if encountered, will be treated with lime and gypsum.

#### 7. <u>VARIANCE REQUESTS:</u>

#### **Reference:** Onshore Oil and Gas Order No. 2 – Item E: Special Drilling Operations

EOG Resources, Inc. requests a variance to regulations requiring the blooie line to be 100' in length. Due to reduce location excavation, the blooie line will be approximately 75' in length



#### WELLS DRAW 18-05GR NW/NW, SEC. 5, T10S, R16E, S.L.B.&M. DUCHESNE COUNTY, UTAH

#### 8. **EVALUATION PROGRAM:**

Logs:

Mud log from base of surface casing to TD.

**Open Hole Logs:** 

Open Hole Logs will be run consisting of the following:

Schlumberger Platform Express: Open Hole Gamma Ray, Resistively, and

**Neutron Porosity** 

#### 9. <u>CEMENT PROGRAM:</u>

#### Surface Hole Procedure $(0-500' \pm Below GL)$

Lead:

185 sks Class 'G' cement with 2% S1 (CaCl2) & 0.25 pps

D29 (cellophane flakes), mixed at 15.8 ppg, 1.16 ft<sup>3</sup>./sk., 4.95 gps water.

**Top Out:** 

207 sks Top out with Class 'G' cement with 2% S1 (CaCl2) in mix water,

15.8 ppg, 1.16

ft<sup>3</sup>./sk., 4.95 gps via 1" tubing set at 25' if needed.

Install 6' x 4' cellar ring, drill rat and mouse holes with spud rig.

Note:

Cement volumes will be calculated to bring cement to surface.

#### <u>Production Hole Procedure (500' $\pm$ to TD)</u>

Lead:

115 sks: 35:65 Poz "G" w/4% D20 (Bentonite), 2% D174 (Extender), 0.2% D65

(Dispersant), 0.2% D46 (Antifoam), 0.75% D112 (Fluid Loss Additive), 0.200% D13 (Retarder), 0.25 pps D29 (cello flakes) mixed at 13.0 ppg, 1.75 ft<sup>3</sup>/sk., 9.19

gps water.

Tail:

650 sks: 50:50 Poz "G" w/ 2% D20 (Bentonite), 0.1% D46 (Antifoam), 0.075% D13

(Retarder), 0.2% D167 (Fluid Loss Additive), 0.2% D65 (Dispersant), mixed at

14.1 ppg, 1.28 ft<sup>3</sup>/sk., 5.9gps water.

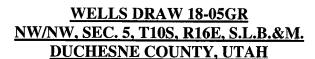
Note:

The above number of sacks is based on gauge-hole calculation.

Lead volume to be calculated to bring cement to 200'± above 9-5/8" casing shoe.

Tail volume to be calculated to bring cement to 400'± above top of Garden Gulch MBR.

Final Cement volumes will be based upon gauge-hole plus 45% excess.



#### 10. ABNORMAL CONDITIONS:

#### **Surface Hole (Surface - 500'±):**

Lost circulation

#### **Production Hole (500'± - TD):**

Sloughing shales, lost circulation and key seat development are possible in the Garden Gulch Formation.

#### 11. STANDARD REQUIRED EQUIPMENT:

- A. Choke Manifold
- B. Upper and Lower Kelly Cock
- C. Stabbing Valve
- D. Visual Mud Monitoring

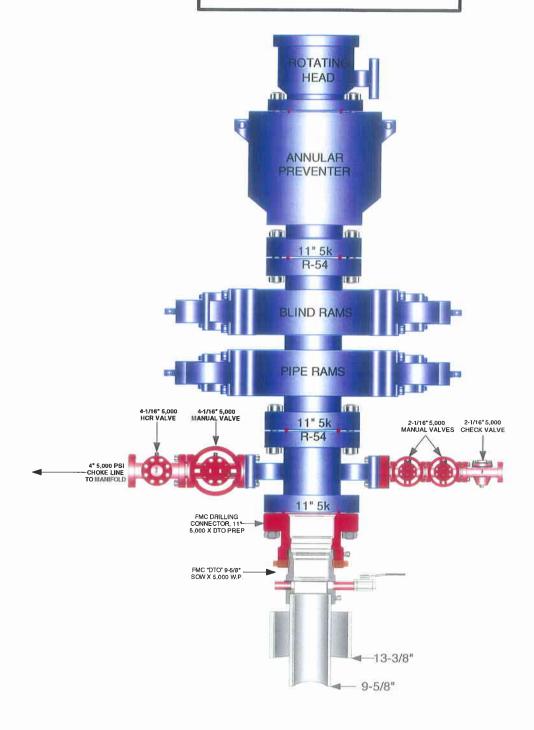
#### 12. HAZARDOUS CHEMICALS:

No chemicals subject to reporting under SARA title III in an amount equal to or greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling of this well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported, or disposed of in association with the drilling of this well.

(Attachment: BOP Schematic Diagram)

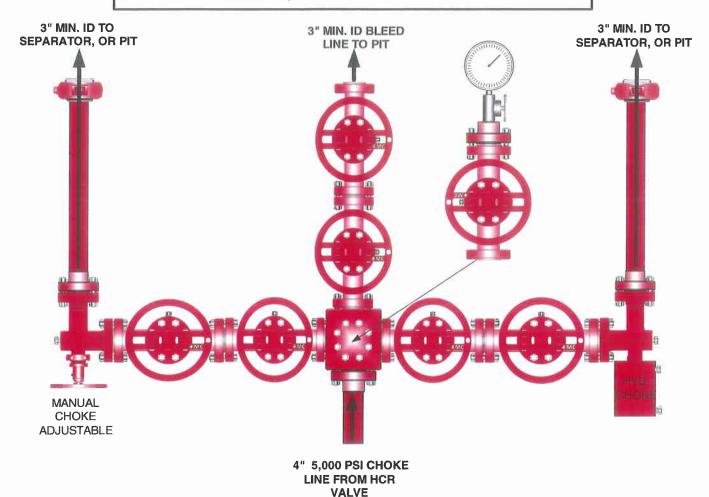
#### PAGE 1 OF 2

# EOG RESOURCES 11" 5,000 PSI W.P. BOP CONFIGURATION



# EOG RESOURCES CHOKE MANIFOLD CONFIGURATION W/ 5,000 PSI WP VALVES

PAGE 2 0F 2



#### Testing Procedure:

- 1. BOP will be tested with a professional tester to conform to Onshore Order #2.
- 2. Blind and Pipe rams will be tested to rated working pressure, 5,000 psi.
- 3. Annular Preventer will be tested to 50% working pressure, 2,500 psi. Casing will be tested to 0.22 psi / ft. or 1,500 psi. Not to exceed 70% of burst strength, whichever is greater.
- 4. All lines subject to well pressure will be tested to the same pressure as blind and pipe rams.
- 5. All BOPE specifications and configurations will meet Onshore Order #2 requirements.



#### WELLS DRAW 18-05GR NWNW (Lot 4), Section 5, T10S, R16E Duchesne County, Utah

#### SURFACE USE PLAN

#### **NOTIFICATION REQUIREMENTS**

Location Construction: Forty-eight (48) hours prior to construction of location and access

roads.

Location Completion: Prior to moving on the drilling rig.

Spud Notice: At least twenty-four (24) hours prior to spudding the well.

Casing String and Twen

Cementing:

Twenty-four (24) hours prior to running casing and cementing

all casing strings.

BOP and related

**Equipment Tests:** 

Twenty-four (24) hours prior to running casing and tests.

First Production Notice: Within five (5) business days after new well begins or production

resumes after well has been off production for more than ninety (90)

days.

The well pad is approximately 275 feet long with a 204-foot width, containing 1.29 acres more or less. The well access road is approximately 1056 feet long with a 30-foot right-of-way, disturbing approximately 0.73 acre. New surface disturbance associated with access road and the well pad is estimated to be approximately 2.02 acres.

The proposed pipeline is approximately 1603 feet long with a 40-foot right-of-way, within Federal Lease UTU 74831, disturbing approximately 1.47 acres, more or less. The proposed pipeline ties into a proposed pipeline for the Gilsonite Draw 5-03GR (a right-of-way application will be submitted within the APD) proceeding for an approximate distance of 49,950 feet, tieing into an existing pipeline for the Big Spring 1-25. No off-lease right-of-way will be required.

#### 1. Existing Roads:

- A. See attached Wellsite Plats showing directional reference stakes on location, and attached TOPO Map "B" showing access to location from existing roads.
- B. The proposed well site is located approximately 18.0 miles south of Myton, Utah See attached TOPO Map "A".
- C. Refer to attached Topographic Map "A" showing labeled access route to location.
- D. Existing roads will be maintained and repaired as necessary.

#### 2. PLANNED ACCESS ROAD:

- A. The access road will be approximately 1056' in length.
- B. The access road has a 30-foot ROW w/18 foot running surface.
- C. Maximum grade of the new access road will be 8 percent.
- D. No turnouts will be required.
- E. Road drainage crossings shall be of the typical dry creek drainage crossing type.
- F. No bridges, or major cuts and fills will be required.
- G. The access road will be dirt surface.
- H. No gates, cattleguards, or fences will be required or encountered.

New or reconstructed roads will be centerlined – flagged at time of location staking.

Road drainage crossings shall be of the typical dry creek drainage crossing type. Crossings shall be designed so they will not cause siltation or accumulation or debris in the drainage crossings nor shall the drainages be blocked by the roadbed. Erosion of drainage ditches by

run off water shall be prevented by diverting water off at frequent intervals by means of cutouts. Upgrading shall not be allowed during muddy conditions. Should mud holes develop, they shall be filled in and detours around then avoided.

As operator, EOG Resources, Inc. shall be responsible for all maintenance on cattleguards, or gates associated with this oil and/or gas operation.

Traveling off the 30 foot right-of-way will not be allowed. The access road and associated drainage structures will be constructed and maintained in accordance with road guidelines contained in the joint BLM/USFS publication: Surface Operating Standards for Oil and Gas Exploration and Development, Third Edition, and/or BLM Manual Section 9113 concerning road construction standards on projects subject to federal jurisdiction. During the drilling and production phase of operations, the road surface and shoulders will be kept in a safe and useable condition and drainage ditches and culverts will be kept clear and free flowing.

#### 3. LOCATION OF EXISTING WELLS WITHIN A ONE-MILE RADIUS:

See attached TOPO map "C" for the location of wells within a one-mile radius.

#### 4. LOCATION OF EXISTING AND/OR PROPOSED PRODUCTION FACILITIES:

#### A. On Well Pad

- Production facilities will be set on location if the well is successfully completed for production. Facilities will consist of wellhead valves, combo separator-dehy unit with meter, two (2) 400 BBL vertical tanks and/or one (1) 300 BBL vertical tank and attaching piping.
- 2. Gas gathering lines A 4" gathering line will be buried from dehy to the edge of the location.

#### B. Off Well Pad

- 1. Proposed location of attendant off pad flowlines shall be flagged prior to archaeological clearance.
- 2. The length of the new proposed pipeline is 1,603' x 40'. The proposed pipeline leaves the eastern edge of the well pad (Lease UTU 74831) proceeding in a westerly direction for an approximate distance of 1,603' to Section 6, T10S, R16E (Lease UTU 74831) tieing into a proposed pipeline for the Gilsonite Draw 5-03GR (Lease UTU 63150, a pipeline right-of-way will be submitted within the APD) proceeding for an approximate distance of 49,950', tieing into an existing pipeline located in the SWSW of Section 25, T10S, R15E. Pipe will be 4" NOM, 0.156 wall, Grade X42, Zap-Lok, electric weld with a 35 mil X-Tru coating.
- 3. Proposed pipeline will be a 4" OD steel, welded line laid on the surface
- 4. Protective measures and devices for livestock and wildlife will be taken and /or installed where required.

If storage facilities/tank batteries are constructed on this lease, the facility/battery or the well pad shall be surrounded by a containment dike of sufficient capacity to contain, at a minimum, the entire contents of the largest tank within the facility/battery, unless more stringent protective requirements are deemed necessary by the authorized officer.

All permanent (on site for six months or longer) structures constructed or installed (including pumping units) will be painted a flat, non-reflective, earthtone color to match one of the standard environmental colors, as determined by the Rocky Mountain Five State Interagency Committee. All facilities will be painted within 6 months of installation. **The production facilities and tanks shall be painted olive black.** Facilities required to comply with O.S.H.A. (Occupational Safety and Health Act) will be excluded.

#### 5. LOCATION AND TYPE OF WATER SUPPLY:

- A. Water supply will be from Ouray Municipal Water Plant at Ouray, Utah, and/ or Target Trucking Inc.'s water source in the SW/SW. Sec 35, T9S, R22E Uintah County, Utah (State Water Right # 49-1501, and/or Myton City water source (Duchesne Valley Treatment Plant) located at 500 West 100 North Myton, Utah (State Water Right # 07002).
- B. Water will be hauled by a licensed trucking company.
- C. No water well will be drilled on lease.

#### 6. Source of Construction Materials:

- A. All construction material for this location and access road will be of native borrow and soil accumulated during the construction of the location.
- B. No mineral materials will be required.

#### 7. METHODS OF HANDLING WASTE DISPOSAL:

#### A. METHODS AND LOCATION

- 1. Cuttings will be confined in the reserve pit.
- 2. A portable toilet will be provided for human waste during the drilling and completion of the well. Disposal will be at the Vernal and/or Roosevelt sewage disposal plant.
- 3. Burning will not be allowed. Trash and other waste material will be contained in a wire mesh cage and disposed of at the Uintah and/or Duchesne County Landfill.
- 4. Produced wastewater will be confined to a lined pit or storage tank for a period not to exceed 90 days after initial production. After the 90 day period, the produced water will be contained in a tank on location and then disposed of at one of the following locations: Ace Disposal, Brennan Bottoms or EOG

Resources, Inc. drilling operations (Chapita Wells Unit, Natural Buttes Unit & Stagecoach Unit).

- 5. All chemicals will be disposed of at an authorized disposal site. Drip pans and absorbent pads will be used on the drilling rig to avoid leakage of oil to the pit.
- B. Water from drilling fluids and recovered during testing operations will be disposed of by either evaporating in the reserve pit or by removed and disposed of at an authorized disposal site. Introduction of well bore hydrocarbons to the reserve pit will be avoided by flaring them off in the flare pit at the time of recovery.

The reserve pit will be constructed so as not to leak, break, or allow discharge. If the reserve pit requires padding prior to lining (due to rocky conditions) felt padding will be used.

The reserve pit shall be lined with felt and a 16-millimeter reinforced plastic liner.

EOG Resources, Inc. maintains a file, per 29 CFR 1910.1200 (g) containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds, and/or substances which are used during the course of construction, drilling, completion, and production operations for this project. Hazardous materials (substances) which may be found at the site may include drilling mud and cementing products which are primarily inhalation hazards, fuels (flammable and/or combustible), materials that may be necessary for well completion/ stimulation activities such as flammable or combustible substances and acids/gels (corrosives). The opportunity for Superfund Amendments and Reauthorization Act (SARA) listed Extremely Hazardous Substances (EHS) at the site is generally limited to proprietary treating chemicals. All hazardous and EHS and commercial preparations will be handled in an appropriate manner to minimize the potential for leaks or spills to the environment.

#### 8. Ancillary Facilities:

None anticipated.

#### 9. WELL SITE LAYOUT:

- A. Refer to attached well site plat for related topography cuts and fills and cross sections.
- B. Refer to attached well site plat for rig layout and soil material stockpile location as approved on On-site.
- C. Refer to attached well site plat for rig orientation, parking areas, and access road.

The reserve pit will be located on the Southwest corner of the location. The flare pit will be located downwind of the prevailing wind direction on the west side of the location, a minimum of 100 feet from the well head and 30 feet from the reserve pit fence.

The stockpiled pit topsoil will be stored separate from the location topsoil south of the location between Corners #4 and #5. The stockpiled location topsoil will be stored on the west side of the location between Corners #7 and #8, and on the east side of the location between Corners #2 and #3. Upon completion of construction, the stockpiled topsoil from the location will be broadcast seeded with the approved seed mixture from this location and then walked down with a Caterpillar tractor.

Access to the well pad will be from the West.

#### **FENCING REQUIREMENTS:**

All pits will be fenced according to the following minimum standards:

- A. Thirty-nine inch net wire shall be used with at least one strand of barbed wire on top of the net wire. (Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.)
- B. The net wire shall be no more than 2 inches above the ground. The barbed wire strand shall be 3 inches above the net wire. Total height of the fence shall be at least 42 inches.
- C. Corner posts shall be cemented and/or braced in such a manner as to keep the fence tight at all times.
- D. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distances between any two posts shall be no greater than 16 feet.
- E. All wire shall be stretched by using a stretching device before it is attached to the corner posts.

The reserve pit fencing will be on the three sides during drilling operations and on the fourth side when the rig moves off location. Pits will be fenced and maintained until clean-up.

Each existing fence to be crossed by the access road shall be braced and tied off before cutting so as to prevent slacking of the wire. The opening shall be closed temporarily as necessary during construction to prevent the escape of livestock, and, upon completion of construction, the fence shall be repaired to BLM or SMA specifications. A cattleguard with an adjacent 16 foot gate shall be installed in any fence where a road is regularly traveled. If the well is a producer, the cattleguards (shall/shall not) be permanently counted on concrete bases. Prior to crossing any fence located on Federal land, or any fence between Federal land and private land, the operator will contact the BLM, who will in turn contact the grazing permittee or owner of said fence and offer him/her the opportunity to be present when the fence is cut in order to satisfy himself/herself that the fence is adequately braced and tied off.

#### 10. Plans for Reclamation of the Surface:

#### A. Producing Location

Immediately upon well completion, the location and surrounding area will be cleared of all unused tubing, equipment, debris, materials, trash, and junk not required for production.

Immediately upon well completion, any hydrocarbons on the pit shall be removed in accordance with CFR 3162.7-1.

If a plastic nylon reinforced liner is used, it shall be torn and perforated before backfilling of the reserve pit.

The reserve pit and that portion of the location not needed for production facilities/operations will be recontoured to the approximate natural contours. The stockpiled pit topsoil will then be spread over the pit area and broadcast seeded with the prescribed seed mixture for this location. The seeded area will then be walked down with a cat.

Seed Mixture	Drilled Rate (lbs./acre PLS*)
Crested Wheatgrass	6.0
Needle and Threadgrass	6.0

<sup>\*</sup>Pure live seed (PLS) formula: percent of purity of seed mixture times percent germination of seed mixture equals portion of seed mixture that is PLS.

#### B. Dry Hole/Abandoned Location

At such time as the well is plugged and abandoned, the operator will submit a subsequent report of abandonment and the BLM will attach the appropriated surface rehabilitation conditions of approval.

Seed Mixture	Drilled Rate (lbs./acre PLS*)
Wyoming Big Sagebrush	3.0
Indian Ricegrass	3.0
Needle and Threadgrass	3.0
Crested Wheatgrass	1.0
Winterfat	1.0

<sup>\*</sup>Pure live seed (PLS) formula: percent of purity of seed mixture times percent germination of seed mixture equals portion of seed mixture that is PLS.

#### 11. SURFACE OWNERSHIP:

Surface ownership of the proposed well site, access road, and pipeline route is as follows:

Bureau of Land Management

#### 12. OTHER INFORMATION:

- A. EOG Resources, Inc. will inform all persons in the area who are associated with this project that they are subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator will immediately stop work that might further disturb such materials, and contact the Authorized Officer. Within five working days the Authorized Officer will inform the operator as to:
  - Whether the materials appear eligible for the National Register of Historic Places;
  - The mitigation measures the operator will likely have to undertake before the site can be used.
  - A time frame for the Authorized Officer to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the Authorized Officer are correct and that mitigation is appropriate.

If the operator wished, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the Authorized Officer will assume responsibility for whatever recordation and stabilization of the exposed materials that may be required. Otherwise, the operator will be responsible for mitigation costs. The Authorized Officer will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the Authorized Officer that required mitigation has been completed, the operator will then be allowed to resume construction.

- B. As operator, EOG Resources, Inc. will control noxious weeds along Right-of-Ways for roads, pipelines, well sites, or other applicable facilities. A list of noxious weeds will be obtained from the BLM administered land, a Pesticide Use proposal shall be submitted, and given approval, prior to the application or herbicides or other pesticides or possible hazardous chemicals.
- C. The drilling rig and ancillary equipment will be removed from the location prior to commencement of completion operations. Completion operations will be conducted utilizing a completion/workover rig.
- D. Drilling rigs and/or equipment used during drilling operations on this well site will not be stacked or stored on BLM lands after the conclusion of drilling operations or at any other time without BLM authorization. However, if BLM authorization is obtained, it is only a temporary measure to allow time to make arrangements for permanent storage

on commercial facilities. (The BLM does not seek to compete with private industry. There are commercial facilities available for stacking and storing drilling rigs.)

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice of Lessees. The operator is fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Construction activity will not be conducted using frozen or saturated soils material or during periods when watershed damage is likely to occur.

If the existing access road, proposed access road, and proposed pad are dry during construction, drilling, and completion activities, water will be applied to help facilitate compaction during construction and to minimize soil loss as a result of wind erosion.

A cultural resources survey was conducted and submitted December 15, 2006 by Montgomery Archaeological Consultants. A paleontology survey was conducted and submitted December 2006 by SWCA Environmental Consultants.

#### **Additional Surface Stipulations:**

No construction or drilling activities shall be conducted from February 1<sup>st</sup> through July 15th due to Golden Eagle stipulations.

#### LESSEE OR OPERATOR'S REPRESENTATIVE AND CERTIFICATION:

#### **PERMITTING AGENT**

Mary A. Maestas EOG Resources, Inc. P.O. Box 1815 Vernal, Ut 84078 (435) 781-9111

#### **DRILLING OPERATIONS**

Donald Presenkowski EOG Resources, Inc. P.O. Box 250 Big Piney, WY 83113 307-276-4865

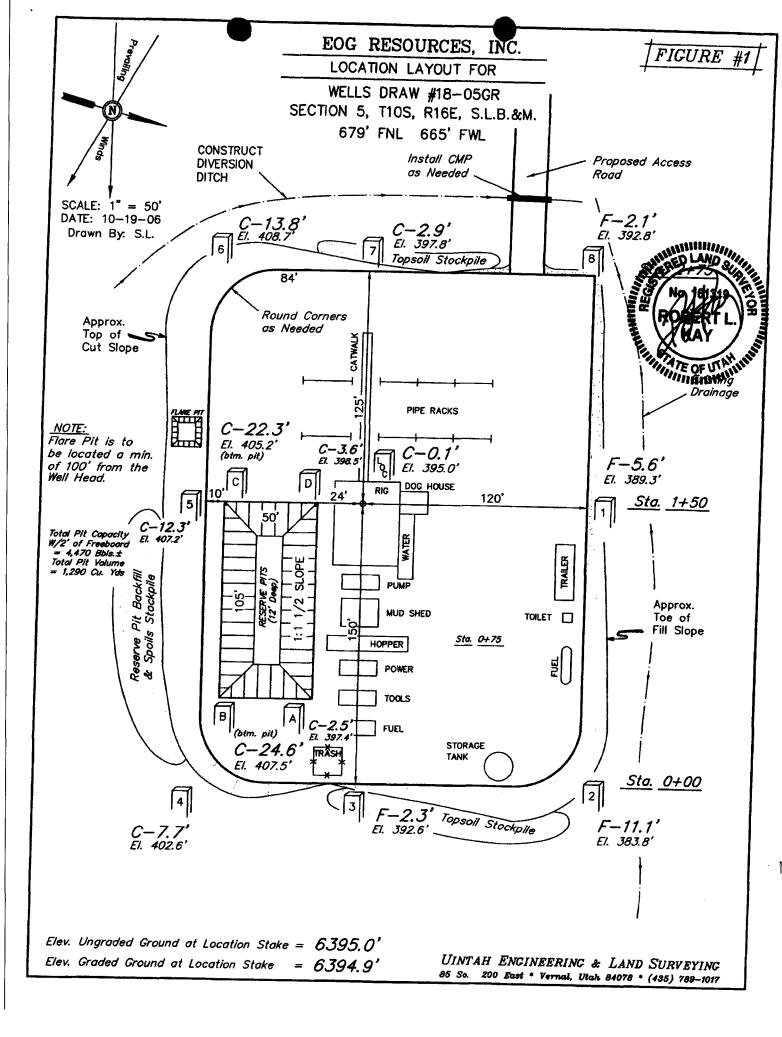
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by EOG Resources, Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

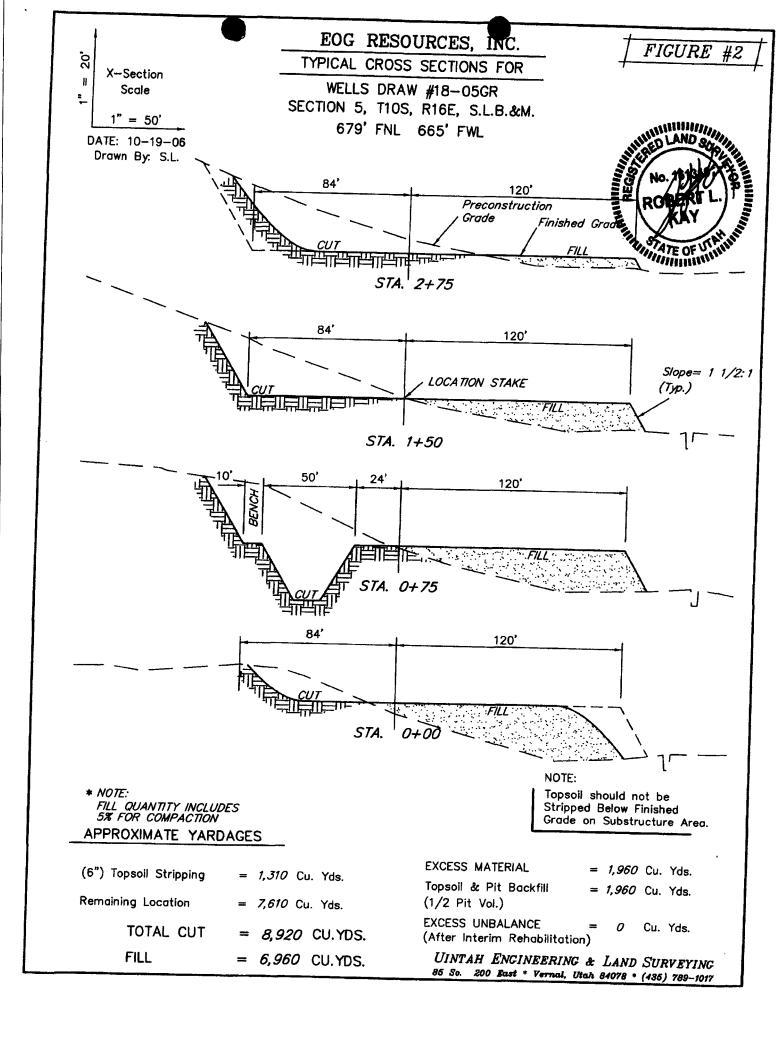
Please be advised that EOG Resources, Inc. is considered to be the operator of the Wells Draw 18-05GR Well, located in the NWNW (Lot 4), of Section 5, T10S, R16E, Duchesne County, Utah; Federal land and minerals; and is responsible under the terms and conditions of the lease for the operations conducted upon the leased lands. Bond Coverage is under Bond # NM 2308.

February 14, 2007

Date

Mary A. Maestas, Regulatory Assistant



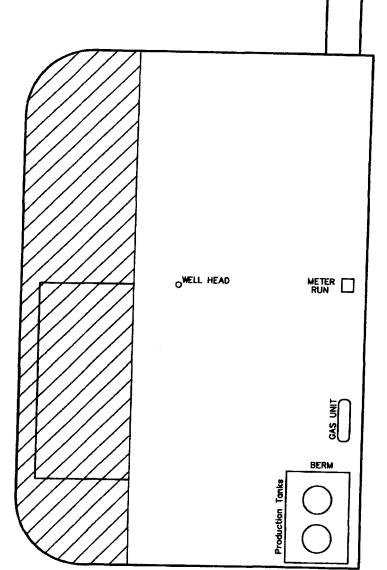


## EOG RESOURCES, INC.

## PRODUCTION FACILITY LAYOUT FOR

WELLS DRAW #18-05GR SECTION 5, T10S, R16E, S.L.B.&M. 679' FNL 665' FWL

SCALE: 1" = 50' DATE: 10-19-06 Drawn By: S.L.





# EOG RESOURCES, INC. WELLS DRAW #18-05GR

LOCATED IN DUCHESNE COUNTY, UTAH SECTION 5, T10S, R16E, S.L.B.&M.

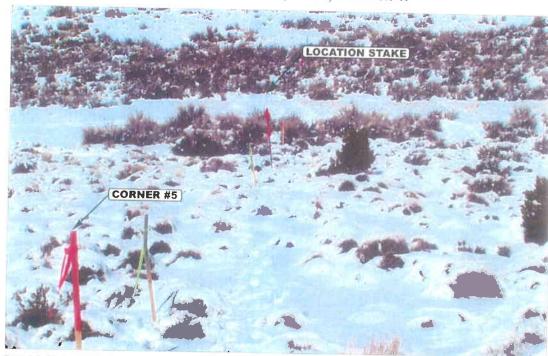


PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKE

CAMERA ANGLE: NORTWESTHERLY



PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS

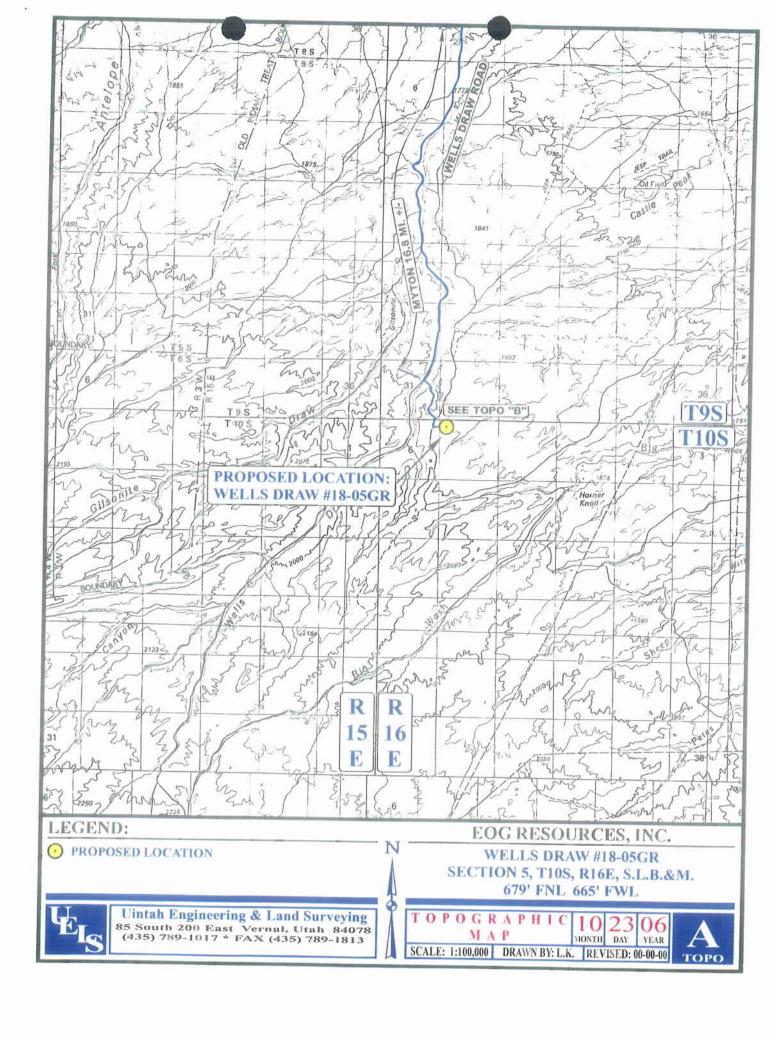
CAMERA ANGLE: SOUTHEASTERLY

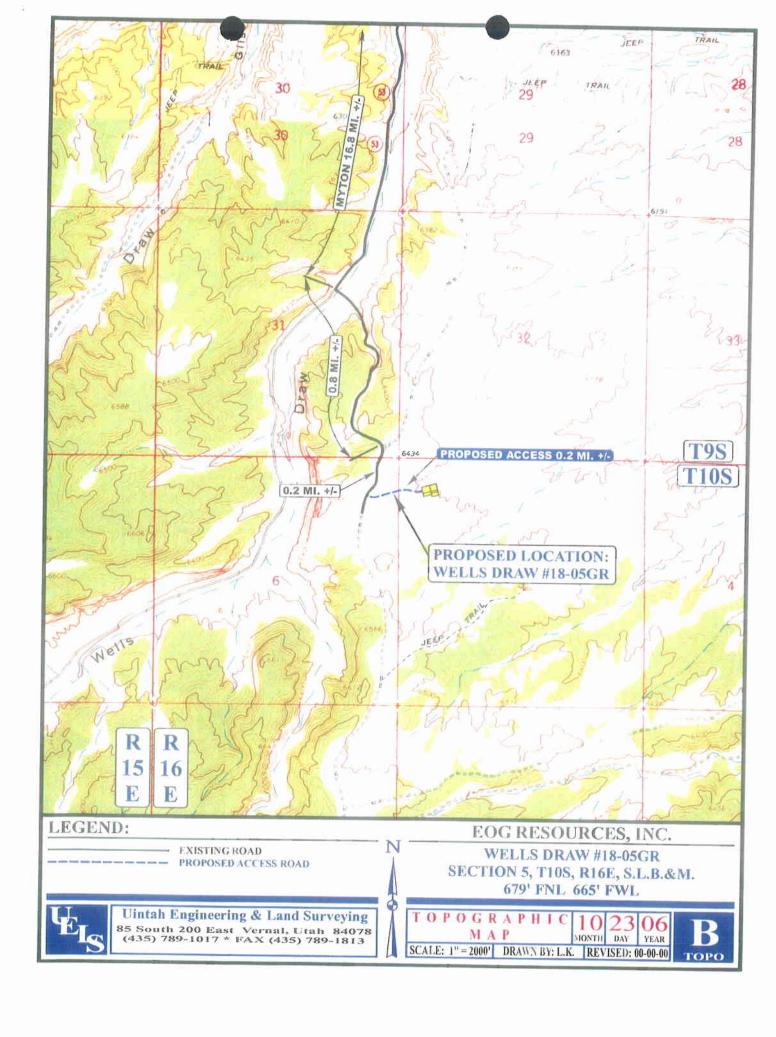


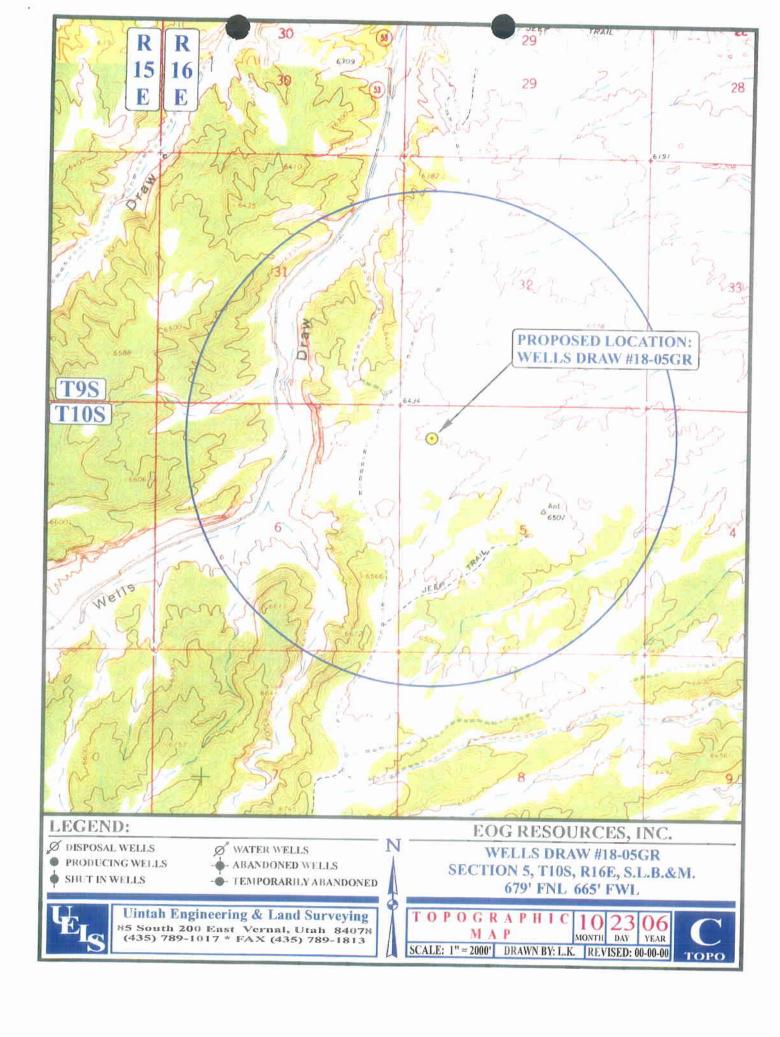
Uintah Engineering & Land Surveying

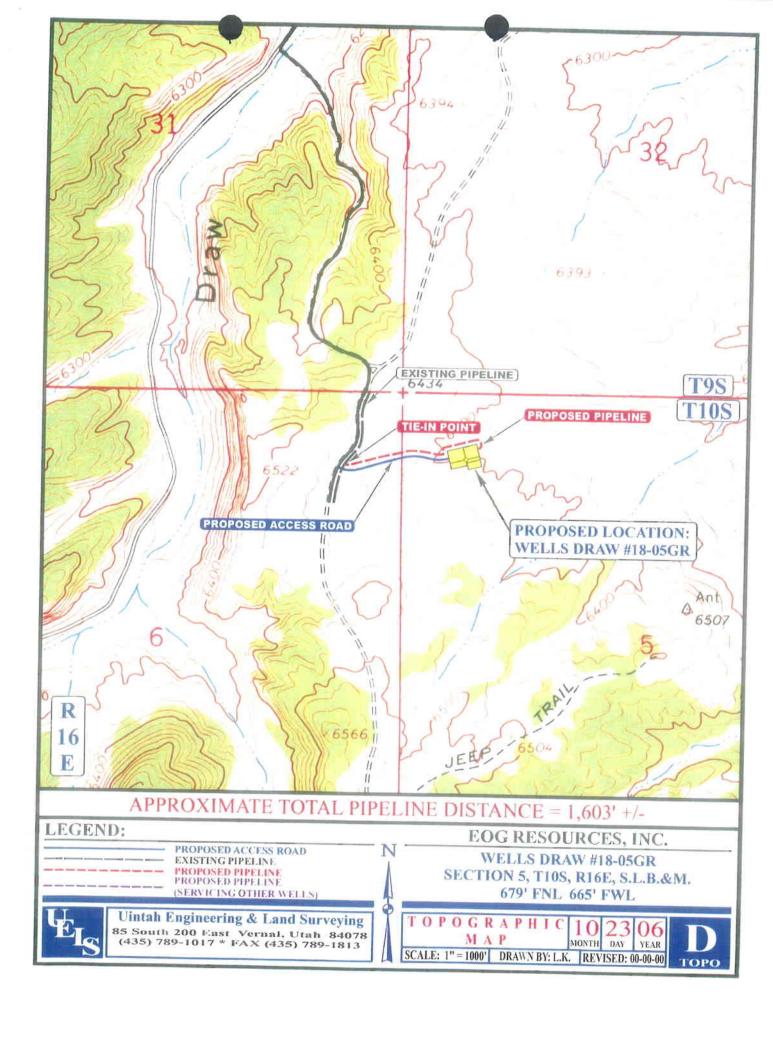
85 South 200 East Vernal, Utah 84078
435-789-1017 uels@uelsinc.com

LOCATION	PHOTOS	10 MONTH	23 DAY	06 YEAR	РНОТО
TAKEN BY: T.A.	DRAWN BY: L.K	IREV	ISED: 0	00-00-00	

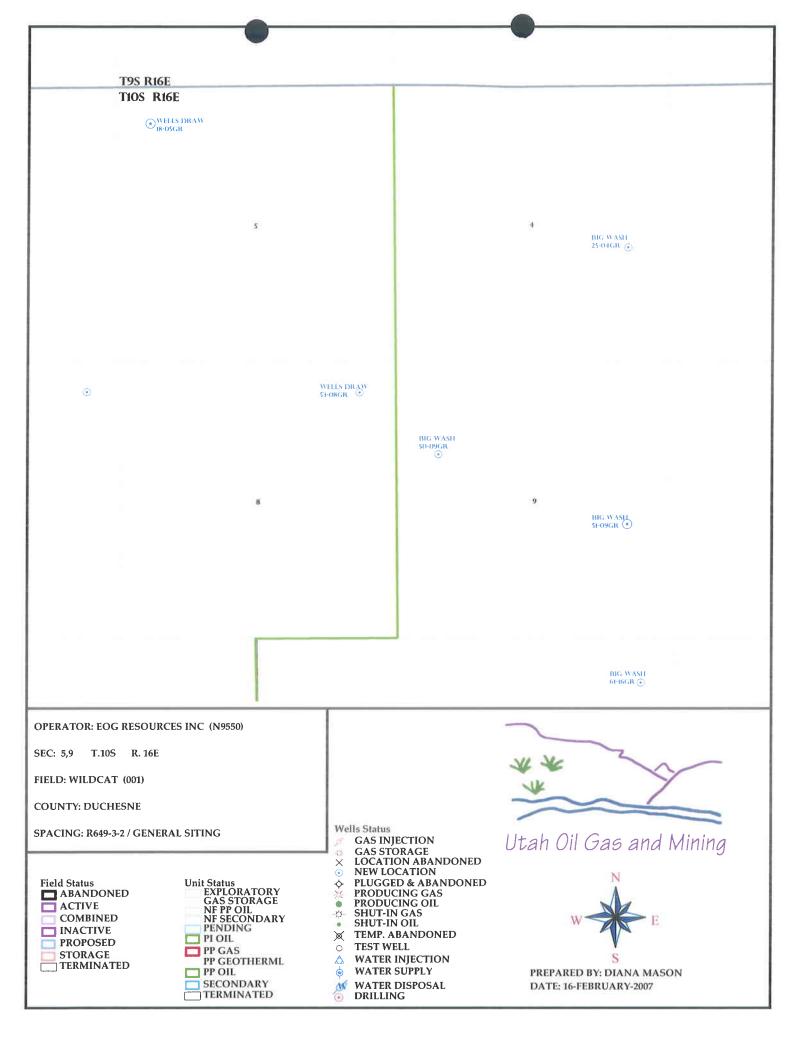








APD RECEIVED: 02/15/2007	API NO. ASSIGNED: 43-013-33546
WELL NAME: WELLS DRAW 18-05GR  OPERATOR: EOG RESOURCES INC ( N9550 )  CONTACT: MARY MAESTAS	PHONE NUMBER: 303-824-5526
PROPOSED LOCATION:	INSPECT LOCATN BY: / /
NWNW 05 100S 160E	Tech Review Initials Date
SURFACE: 0679 FNL 0665 FWL BOTTOM: 0679 FNL 0665 FWL	Engineering
COUNTY: DUCHESNE	Geology
LATITUDE: 39.97838 LONGITUDE: -110.1494 UTM SURF EASTINGS: 572630 NORTHINGS: 4425494	Surface
FIELD NAME: WILDCAT ( 1 )	
LEASE TYPE: 1 - Federal LEASE NUMBER: UTU 74831	PROPOSED FORMATION: GRRV
SURFACE OWNER: 1 - Federal	COALBED METHANE WELL? NO
	ATION AND SITING: R649-2-3.  t:
STIPULATIONS:  1 Learn Deproce  2. Space Ship	





State of Utah

Department of Natural Resources

MICHAEL R. STYLER Executive Director

Division of Oil, Gas & Mining

JOHN R. BAZA
Division Director



JON M. HUNTSMAN, JR. Governor

GARY R. HERBERT Lieutenant Governor

February 21, 2007

EOG Resources, Inc. 1060 East Highway 40 Vernal, UT 84078

Re: Wells Draw 18-05GR Well, 679' FNL, 665' FWL, NW NW, Sec. 5,

T. 10 South, R. 16 East, Duchesne County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann.§ 40-6-1 et seq., Utah Administrative Code R649-3-1 et seq., and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-013-33546.

Sincerely,

Gil Hunt

Associate Director

Mil711

pab

**Enclosures** 

cc:

**Duchesne County Assessor** 

Bureau of Land Management, Vernal District Office

Operator:	EOG Resources, Inc.				
Well Name & Number	Wells Draw 18-05GR				
API Number:	43-013-33546				
Lease:	UTU-74831				
Location: <u>NW NW</u>	Sec. 5	<b>T.</b> 10 South	<b>R.</b> 16 East		

#### **Conditions of Approval**

#### 1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

#### 2. Notification Requirements

Notify the Division with 24 hours of spudding the well.

Contact Carol Daniels at (801) 538-5284.

Notify the Division prior to commencing operations to plug and abandon the well.

• Contact Dustin Doucet at (801) 538-5281 office (801) 733-0983 home

#### 3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

- 4. State approval of this well does not supersede the required federal approval, which must be obtained prior to drilling.
- 5. This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.

#### STATE OF UTAH

·. [	DEPARTMENT OF NATUR DIVISION OF OIL, GAS			5. LEASE DESIGNATION AND SERIAL NUMBER:
SUNDRY	NOTICES AND R	EPORTS ON WEL	.LS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for proposals to drill n	new wells, significantly deepen existing aterals. Use APPLICATION FOR PER	wells below current bottom-hole de	oth, reenter plugged wells, or to	7. UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL OIL WELL		OTHER	als.	8. WELL NAME and NUMBER: Wells Draw 18-05GR
2. NAME OF OPERATOR: EOG Resources, Inc.				9. API NUMBER: 43-013-33546
3. ADDRESS OF OPERATOR:			PHONE NUMBER:	10. FIELD AND POOL, OR WILDCAT:
600 17th St., Suite 1000N	Denver STAT	E CO ZIP 80202	(303) 824-5526	Green River
4. LOCATION OF WELL FOOTAGES AT SURFACE: 679' F	NL & 665' FWL 39.97	8272 LAT 110.15025	0 LON	COUNTY: Duchesne
QTR/QTR, SECTION, TOWNSHIP, RAN	nge, meridian: Lot 4 5	10S 16E S		STATE: UTAH
11. CHECK APPI	ROPRIATE BOXES TO	INDICATE NATURE	OF NOTICE, REPO	RT, OR OTHER DATA
TYPE OF SUBMISSION		-	TYPE OF ACTION	
✓ NOTICE OF INTENT	ACIDIZE	DEEPEN		REPERFORATE CURRENT FORMATION
(Submit in Duplicate)	ALTER CASING	FRACTUR	E TREAT	SIDETRACK TO REPAIR WELL
Approximate date work will start:	CASING REPAIR	NEW CON	STRUCTION	TEMPORARILY ABANDON
	CHANGE TO PREVIOUS PL	ANS DPERATO	R CHANGE	TUBING REPAIR
	CHANGE TUBING	PLUG AND	ABANDON	VENT OR FLARE
SUBSEQUENT REPORT	CHANGE WELL NAME	PLUG BAC	K	WATER DISPOSAL
(Submit Original Form Only)	CHANGE WELL STATUS	PRODUCT	ION (START/RESUME)	WATER SHUT-OFF
Date of work completion:	COMMINGLE PRODUCING	FORMATIONS RECLAMA	TION OF WELL SITE	OTHER:
	CONVERT WELL TYPE	RECOMPL	ÉTE - DIFFERENT FORMATION	
12. DESCRIBE PROPOSED OR CO		ange the drilling plan for Accepte Utah Di Oil, Gas a		nes, etc.
		and the second s	D. 1.	
NAME (PLEASE PRINT) Mary A. M	naestas	TF	Regulatory Assis	stant

(This space for State use only)

SIGNATURE

**RECEIVED** 

10/23/2007

OCT 2 5 2007

#### WELLS DRAW 18-05GR NW/NW, SEC. 5, T10S, R16E, S.L.B.&M. UINTAH COUNTY, UTAH

#### 1. & 2. ESTIMATED TOPS & ANTICIPATED OIL, GAS, & WATER ZONES:

FORMATION	TVD-RKB (ft)	Objective	Lithology	
Uinta FM	18			
Green River FM	1,345			
Mahogany Oil Shale Bed	2,535			Oil
Garden Gulch MBR	3,295	Secondary	-	Oil / Gas
Middle Carb Bed	3,490			
Douglas Creek MBR	4,235	Primary		Oil / Gas
Castle Peak MBR	5,100	Secondary		Oil / Gas
Uteland Butte MBR	5,565	Secondary		Oil / Gas
Wasatch	5,735			
TD	5,850			

EST. TD: 5,850' or 200' ± below Wasatch Top

**Anticipated BHP: 2,890 Psig** 

- 1. Fresh Waters may exist in the upper, approximately 1,000 ft ± of the Green River Formation, with top at about 2,000 ft ±.
- 2. Cement isolation is installed to surface of the well isolating all zones by cement.
- **PRESSURE CONTROL EQUIPMENT:** Production Hole 5,000 Psig BOP Schematic Diagram attached.

#### 4. **CASING PROGRAM:**

CASING	<u>Hole</u> Size	<u>Length</u>	<u>Size</u>	WEIGHT	<u>Grade</u>	Thread	<u>Rating</u> <u>Collapse</u>	<u>Factor</u> <u>Burst</u>	<u>Tensile</u>
Conductor	17 1/2"	0 – 45'	13 3/8"	48.0#	H-40	STC	770 PSI	1730 PSI	322,000#
Surface	12 1/4"	Surface– 500' KB±	9-5/8"	36.0#	J-55	STC	2020 PSI	3520 Psi	394,000#
Production	7-7/8"	Surface - TD	4-1/2"	11.6#	J-55	LTC	4960 PSI	5350 Psi	162,000#

#### All casing will be new or inspected.

#### WELLS DRAW 18-05GR NW/NW, SEC. 5, T10S, R16E, S.L.B.&M. UINTAH COUNTY, UTAH

#### 5. Float Equipment:

#### Surface Hole Procedure (0 - 500' ± Below GL):

Guide Shoe

Insert Float Collar (PDC drillable)

Centralizers: 1 - 5-10' above shoe, every collar for next 3 joints (4 total).

#### Production Hole Procedure (500' $\pm$ - TD):

Float shoe, 1 joint casing, float collar and balance of casing to surface. 4-1/2", 11.6#, J-55 or equivalent marker collars or short casing joints to be placed 400' above top of Garden Gulch. Centralizers to be placed 5' above shoe on joint #1, top of joint #2, and every 2nd joint to 400' above Garden Gulch top. (15± total). Thread lock float shoe, top and bottom of float collar, and top of 2<sup>nd</sup> joint.

#### 6. **MUD PROGRAM:**

#### Surface Hole Procedure $(0 - 500' \pm below GL)$ :

Air/air mist or aerated water

#### Production Hole Procedure (500' $\pm$ - TD):

Anticipated mud weight 9.0 - 9.5 ppg depending on actual wellbore condition encountered while drilling.

A closed mud system will be utilized. A bentonite gelled water mud system will be used to control viscosity w/PHPA polymer used for supplemental viscosity and clay encapsulation/inhibition. Water loss will be maintained at <15cc's using white starch or PAC. Bactericides will be used as needed. Anticipated pH will range from 9.0-10.0. Mud weight will be adjusted as necessary for well control. Deflocculants/thinners will be used as necessary to maintain mud quality. LCM sweeps will be utilized as necessary to control lost circulation and mud loss. CO2 contamination, if encountered, will be treated with lime and gypsum.

#### 7. VARIANCE REQUESTS:

#### **Reference:** Onshore Oil and Gas Order No. 2 – Item E: Special Drilling Operations

EOG Resources, Inc. requests a variance to regulations requiring the blooie line to be 100' in length. Due to reduce location excavation, the blooie line will be approximately 75' in length

#### WELLS DRAW 18-05GR NW/NW, SEC. 5, T10S, R16E, S.L.B.&M. UINTAH COUNTY, UTAH

#### 8. **EVALUATION PROGRAM:**

**Logs:** Mud log from base of surface casing to TD.

**Open Hole Logs**: Open Hole Logs will be run consisting of the following:

Schlumberger Platform Express: Open Hole Gamma Ray, Resistively, and

**Neutron Porosity** 

#### 9. <u>CEMENT PROGRAM:</u>

#### Surface Hole Procedure (0-500' ± Below GL)

Lead: 185 sks Class 'G' cement with 2% S1 (CaCl2) & 0.25 pps

D29 (cellophane flakes), mixed at 15.8 ppg, 1.16 ft<sup>3</sup>./sk., 4.95 gps water.

**Top Out:** 207 sks Top out with Class 'G' cement with 2% S1 (CaCl2) in mix water,

15.8 ppg, 1.16

ft<sup>3</sup>/sk., 4.95 gps via 1" tubing set at 25' if needed.

Install 6' x 4' cellar ring, drill rat and mouse holes with spud rig.

Note: <u>Cement volumes will be calculated to bring cement to surface.</u>

#### **Production Hole Procedure (500' ± to TD)**

**Lead:** 152 sks: 35:65 Poz "G" w/4% D20 (Bentonite), 2% D174 (Extender), 0.2% D65

(Dispersant), 0.2% D46 (Antifoam), 0.75% D112 (Fluid Loss Additive), 0.200% D13 (Retarder), 0.25 pps D29 (cello flakes) mixed at 13.0 ppg, 1.75 ft<sup>3</sup>/sk., 9.19

gps water.

**Tail:** 650 sks: 50:50 Poz "G" w/ 2% D20 (Bentonite), 0.1% D46 (Antifoam), 0.075% D13

(Retarder), 0.2% D167 (Fluid Loss Additive), 0.2% D65 (Dispersant), mixed at

14.1 ppg, 1.28 ft<sup>3</sup>/sk., 5.9gps water.

**Note**: The above number of sacks is based on gauge-hole calculation.

Lead volume to be calculated to bring cement to 200'± above 9-5/8" casing shoe.

Tail volume to be calculated to bring cement to 400'± above top of Garden Gulch MBR.

Final Cement volumes will be based upon gauge-hole plus 45% excess.

#### WELLS DRAW 18-05GR NW/NW, SEC. 5, T10S, R16E, S.L.B.&M. UINTAH COUNTY, UTAH

#### 10. <u>ABNORMAL CONDITIONS:</u>

#### Surface Hole (Surface - 500'±):

Lost circulation

#### **Production Hole (500'± - TD):**

Sloughing shales, lost circulation and key seat development are possible in the Garden Gulch Formation.

#### 11. STANDARD REQUIRED EQUIPMENT:

- A. Choke Manifold
- B. Upper and Lower Kelly Cock
- C. Stabbing Valve
- D. Visual Mud Monitoring

#### 12. <u>HAZARDOUS CHEMICALS:</u>

No chemicals subject to reporting under SARA title III in an amount equal to or greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling of this well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported, or disposed of in association with the drilling of this well.

(Attachment: BOP Schematic Diagram)

#### STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING	5. LEASE DESIGNATION AND SERIAL NUMBER:		
	UTU-74831		
SUNDRY NOTICES AND REPORTS ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	7. UNIT or CA AGREEMENT NAME:		
1. TYPE OF WELL OIL WELL GAS WELL OTHER	8. WELL NAME and NUMBER: Wells Draw 18-05GR		
2. NAME OF OPERATOR: EOG Resources, Inc.	9. API NUMBER: 43-013-33546		
3. ADDRESS OF OPERATOR: 600 17th St., Suite 1000N CITY Denver STATE CO ZIP 80202 (303) 824-5526	10. FIELD AND POOL, OR WILDCAT: Green River		
4. LOCATION OF WELL			
FOOTAGES AT SURFACE: 679' FNL & 665' FWL 39.978272 LAT 110.150250 LON	county: Duchesne		
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Lot 4 5 10S 16E S	STATE: UTAH		
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPO	RT, OR OTHER DATA		
TYPE OF SUBMISSION TYPE OF ACTION			
NOTICE OF INTENT	REPERFORATE CURRENT FORMATION		
(Submit in Duplicate)	SIDETRACK TO REPAIR WELL		
Approximate date work will start: CASING REPAIR NEW CONSTRUCTION	TEMPORARILY ABANDON		
CHANGE TO PREVIOUS PLANS  OPERATOR CHANGE	TUBING REPAIR		
CHANGE TUBING PLUG AND ABANDON	VENT OR FLARE		
SUBSEQUENT REPORT (Submit Original Form Only)  CHANGE WELL NAME  PLUG BACK  PROPRIETION  CHANGE WELL NAME  PROPRIETION  CHANGE WELL NAME  PROPRIETION  CHANGE WELL NAME  PROPRIETION  CHANGE WELL NAME  CHANGE WEL	WATER DISPOSAL		
Date of work completion:  CHANGE WELL STATUS  PRODUCTION (START/RESUME)	WATER SHUT-OFF		
COMMINGLE PRODUCING FORMATIONS RECLAMATION OF WELL SITE	OTHER:		
CONVERT WELL TYPE RECOMPLETE - DIFFERENT FORMATION			
DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volume EOG Resources, Inc. requests permission to change the drilling plan for the subject well. To production casing were insufficient. Attached is a revised drilling plan.  **Accepted by the Utah Division of Utah Division of Utah Division of Utah Division Oil, Gas and Mining Oil, Gas and Oil of Complete Oil of Compl			
NAME (PLEASE PRINT) Mary A. Maestas Regulatory Assis	stant		
Man. 10/29/2007			

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#### WELLS DRAW 18-05GR NW/NW, SEC. 5, T10S, R16E, S.L.B.&M. UINTAH COUNTY, UTAH

#### 1. & 2. ESTIMATED TOPS & ANTICIPATED OIL, GAS, & WATER ZONES:

FORMATION	TVD-RKB (ft)	Objective	Lithology	
Uinta FM	18			
Green River FM	1,345			
Mahogany Oil Shale Bed	2,535			Oil
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Castle Peak MBR	5,100	Secondary		Oil / Gas
Uteland Butte MBR	5,565	Secondary		Oil / Gas
Wasatch	5,735			
TD	5,850			

EST. TD: 5,850' or 200' ± below Wasatch Top

Anticipated BHP: 2,890 Psig

- 1. Fresh Waters may exist in the upper, approximately 1,000 ft  $\pm$  of the Green River Formation, with top at about 2,000 ft  $\pm$ .
- 2. Cement isolation is installed to surface of the well isolating all zones by cement.
- 3. PRESSURE CONTROL EQUIPMENT: Production Hole 5,000 Psig BOP Schematic Diagram attached.

#### 4. CASING PROGRAM:

CASING	Hole Size	<u>Length</u>	Size	WEIGHT	<u>Grade</u>	Thread	<u>Rating</u> <u>Collapse</u>	<u>Factor</u> <u>Burst</u>	<u>Tensile</u>
Conductor	17 ½"	0 – 45'	13 %"	48.0#	H-40	STC _	770 PSI	1730 PSI	322,000#
Surface	12 ¼"	Surface- 500' KB±	9-5/8"	36.0#	J-55	STC	2020 PSI	3520 Psi	394,000#
Production	7-7/8"	Surface – TD	4-1/2"	11.6#	J-55	LTC	4960 PSI	5350 Psi	162,000#
				_					

#### All casing will be new or inspected.

#### WELLS DRAW 18-05GR NW/NW, SEC. 5, T10S, R16E, S.L.B.&M. UINTAH COUNTY, UTAH

#### 5. Float Equipment:

#### Surface Hole Procedure $(0 - 500' \pm Below GL)$ :

Guide Shoe

Insert Float Collar (PDC drillable)

Centralizers: 1 - 5-10' above shoe, every collar for next 3 joints (4 total).

#### **Production Hole Procedure (500' ± - TD):**

Float shoe, 1 joint casing, float collar and balance of casing to surface.  $4-\frac{1}{2}$ ", 11.6#, J-55 or equivalent marker collars or short casing joints to be placed 400' above top of Garden Gulch. Centralizers to be placed 5' above shoe on joint #1, top of joint #2, and every 2nd joint to 400' above Garden Gulch top. (15± total). Thread lock float shoe, top and bottom of float collar, and top of  $2^{nd}$  joint.

#### 6. <u>MUD PROGRAM:</u>

#### Surface Hole Procedure $(0 - 500' \pm below GL)$ :

Air/air mist or aerated water

#### Production Hole Procedure (500° ± - TD):

Anticipated mud weight 9.0 - 9.5 ppg depending on actual wellbore condition encountered while drilling.

A closed mud system will be utilized. A bentonite gelled water mud system will be used to control viscosity w/PHPA polymer used for supplemental viscosity and clay encapsulation/inhibition. Water loss will be maintained at <15cc's using white starch or PAC. Bactericides will be used as needed. Anticipated pH will range from 9.0-10.0. Mud weight will be adjusted as necessary for well control. Deflocculants/thinners will be used as necessary to maintain mud quality. LCM sweeps will be utilized as necessary to control lost circulation and mud loss. CO2 contamination, if encountered, will be treated with lime and gypsum.

#### 7. VARIANCE REQUESTS:

#### Reference: Onshore Oil and Gas Order No. 2 – Item E: Special Drilling Operations

EOG Resources, Inc. requests a variance to regulations requiring the blooie line to be 100' in length. Due to reduce location excavation, the blooie line will be approximately 75' in length

#### WELLS DRAW 18-05GR NW/NW, SEC. 5, T10S, R16E, S.L.B.&M. UINTAH COUNTY, UTAH

#### 8. EVALUATION PROGRAM:

Ç

**Logs:** Mud log from base of surface casing to TD.

**Open Hole Logs**: Open Hole Logs will be run consisting of the following:

Schlumberger Platform Express: Open Hole Gamma Ray, Resistively, and

**Neutron Porosity** 

#### 9. <u>CEMENT PROGRAM:</u>

#### Surface Hole Procedure (0-500' ± Below GL)

**Lead:** 185 sks Class 'G' cement with 2% S1 (CaCl2) & 0.25 pps

D29 (cellophane flakes), mixed at 15.8 ppg, 1.16 ft<sup>3</sup>./sk., 4.95 gps water.

**Top Out:** 207 sks Top out with Class 'G' cement with 2% S1 (CaCl2) in mix water,

15.8 ppg, 1.16

ft<sup>3</sup>./sk., 4.95 gps via 1" tubing set at 25' if needed.

Install 6' x 4' cellar ring, drill rat and mouse holes with spud rig.

Note: Cement volumes will be calculated to bring cement to surface.

#### Production Hole Procedure (500' $\pm$ to TD)

**Lead:** 213 sks: 35:65 Poz "G" w/4% D20 (Bentonite), 2% D174 (Extender), 0.2% D65

(Dispersant), 0.2% D46 (Antifoam), 0.75% D112 (Fluid Loss Additive), 0.200% D13 (Retarder), 0.25 pps D29 (cello flakes) mixed at 13.0 ppg, 1.75 ft<sup>3</sup>/sk., 9.19

gps water.

**Tail:** 785 sks: 50:50 Poz "G" w/ 2% D20 (Bentonite), 0.1% D46 (Antifoam), 0.075% D13

(Retarder), 0.2% D167 (Fluid Loss Additive), 0.2% D65 (Dispersant), mixed at

14.1 ppg,  $1.28 \text{ ft}^3/\text{sk.}$ , 5.9 gps water.

**Note**: The above number of sacks is based on gauge-hole calculation.

Lead volume to be calculated to bring cement to 200'± above 9-5/8" casing shoe.

Tail volume to be calculated to bring cement to 400'± above top of Garden Gulch MBR.

Final Cement volumes will be based upon gauge-hole plus 45% excess.

#### WELLS DRAW 18-05GR NW/NW, SEC. 5, T10S, R16E, S.L.B.&M. UINTAH COUNTY, UTAH

#### 10. ABNORMAL CONDITIONS:

#### Surface Hole (Surface - 500'±):

Lost circulation

#### Production Hole (500'± - TD):

Sloughing shales, lost circulation and key seat development are possible in the Garden Gulch Formation.

#### 11. STANDARD REQUIRED EQUIPMENT:

- A. Choke Manifold
- B. Upper and Lower Kelly Cock
- C. Stabbing Valve
- D. Visual Mud Monitoring

#### 12. HAZARDOUS CHEMICALS:

No chemicals subject to reporting under SARA title III in an amount equal to or greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling of this well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported, or disposed of in association with the drilling of this well.

(Attachment: BOP Schematic Diagram)

STATE OF UTAH	FORM 9					
DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING	5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-74831					
SUNDRY NOTICES AND REPORTS ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:					
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	7. UNIT or CA AGREEMENT NAME:					
1. TYPE OF WELL OIL WELL GAS WELL OTHER	8. WELL NAME and NUMBER: Wells Draw 18-05GR					
2. NAME OF OPERATOR: EOG Resources, Inc.	9. API NUMBER: 43-013-33546					
3. ADDRESS OF OPERATOR: PHONE NUMBER:	10. FIELD AND POOL, OR WILDCAT:					
600 17th Street, Suite 1000N CITY Denver STATE CO ZIP 80202 (303) 824-5526	Natural Buttes/Green River					
4. LOCATION OF WELL FOOTAGES AT SURFACE: 679' FNL & 665' FWL 39.978272 LAT 110.150250 LON	COUNTY: Duchesne					
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWNW 5 10S 16E S.L.B. & M	STATE: UTAH					
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPO	RT, OR OTHER DATA					
TYPE OF SUBMISSION TYPE OF ACTION						
ACIDIZE DEEPEN	REPERFORATE CURRENT FORMATION					
NOTICE OF INTENT (Submit in Duplicate)  ALTER CASING  FRACTURE TREAT	SIDETRACK TO REPAIR WELL					
Approximate date work will start: CASING REPAIR NEW CONSTRUCTION	TEMPORARILY ABANDON					
CHANGE TO PREVIOUS PLANS OPERATOR CHANGE	TUBING REPAIR					
III	VENT OR FLARE					
SUBSEQUENT REPORT CHANGE WELL NAME PLUG BACK (Submit Original Form Only)	WATER DISPOSAL					
Date of work completion:  CHANGE WELL STATUS  PRODUCTION (START/RESUME)	WATER SHUT-OFF					
COMMINGLE PRODUCING FORMATIONS RECLAMATION OF WELL SITE	OTHER: APD EXTENSION					
CONVERT WELL TYPE RECOMPLETE - DIFFERENT FORMATION	REQUEST					
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volume	es, etc.					
EOG Resources, Inc. respectfully requests the APD for the referenced well be extended for one year.						
Lod hesources, inc. respectibility requests the Ar D for the referenced well be extended for one year.						
Approved by the						
Utah Division of						
Oil, Gas and Mining						
Date: 02-20-9P()						
$\sum (X) (Y) (Y) X$	COPY SENT TO OPERATOR					
By:	_					
	Date: 2-21-2008					
/3 -	Initials: KS					
	.,					

(This space for State use only)

SIGNATURE

NAME (PLEASE PRINT) Mary A. Maestas

RECEIVED
FEB 1 9 2008

Regulatory Assistant

DATE <u>2/15</u>/2008

DIV. OF OIL, GAS & MINING

#### Application for Permit to Drill Request for Permit Extension Validation

(this form should accompany the Sundry Notice requesting permit extension)

API: 43-013-33546  Well Name: Wells Draw 18-05GR  Location: 679 FNL 665 FWL (NWNW, Lot 4), SECTION 5, T10S, R16E S.L.B.&  Company Permit Issued to: EOG RESOURCES, INC.  Date Original Permit Issued: 2/21/2007					
The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision.					
Following is a checklist of some items related to the application, which should be verified.					
If located on private land, has the ownership changed, if so, has the surface agreement been updated? Yes □ No □					
Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? Yes□No☑					
Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? Yes□No☑					
Have there been any changes to the access route including ownership, or right-of-way, which could affect the proposed location? Yes□No ☑					
Has the approved source of water for drilling changed? Yes□No☑					
Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes□No☑					
Is bonding still in place, which covers this proposed well? Yes ☑No ☐					
Mary a. May a. 2/15/2008 Signature Date					
Title: Regulatory Assistant					
Representing: EOG Resources, Inc.  RECEIVED FEB 1 9 2008					

#### STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL GAS AND MINING

	5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-74831					
SUNDRY	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:					
Do not use this form for proposals to drill r	7. UNIT or CA AGREEMENT NAME:					
1. TYPE OF WELL OIL WELL	8. WELL NAME and NUMBER: Wells Draw 18-05GR					
2. NAME OF OPERATOR:			9. API NUMBER:			
EOG Resources, Inc.	43-013-33546					
3. ADDRESS OF OPERATOR: 1060 East Highway 40	10. FIELD AND POOL, OR WILDCAT: Natural Buttes/Green River					
4. LOCATION OF WELL FOOTAGES AT SURFACE: 679' F	NL & 665' FWL 39.978272 LAT 110.1	150250 LON	county: Duchesne			
QTR/QTR, SECTION, TOWNSHIP, RAN	STATE: UTAH .					
11. CHECK APPI	ROPRIATE BOXES TO INDICATE NA	TURE OF NOTICE, REPOR	RT, OR OTHER DATA			
TYPE OF SUBMISSION		TYPE OF ACTION				
	ACIDIZE	DEEPEN	REPERFORATE CURRENT FORMATION			
NOTICE OF INTENT (Submit in Duplicate)	ALTER CASING	FRACTURE TREAT	SIDETRACK TO REPAIR WELL			
Approximate date work will start:	CASING REPAIR	NEW CONSTRUCTION	TEMPORARILY ABANDON			
	CHANGE TO PREVIOUS PLANS	OPERATOR CHANGE	TUBING REPAIR			
· · · · · · · · · · · · · · · · · · ·	CHANGE TUBING	PLUG AND ABANDON	VENT OR FLARE			
SUBSEQUENT REPORT	CHANGE WELL NAME	PLUG BACK	WATER DISPOSAL			
(Submit Original Form Only)	CHANGE WELL STATUS	PRODUCTION (START/RESUME)	WATER SHUT-OFF			
Date of work completion:		RECLAMATION OF WELL SITE	OTHER: APD WITHDRAWAL			
		RECOMPLETE - DIFFERENT FORMATION	E omen to the other transfer of the other tr			
12 DECODIDE DOCUMENTO OR OF						
	DMPLETED OPERATIONS. Clearly show all pertinent					
EOG Resources, Inc. resp	pectfully withdraws the Application for F	Permit to Drill approved 2/21	/2007.			
	# 12.					
NAME (F) FASE OR (A) Kavle ne F	R. Gardner	TITLE Lead Regulatory	Assistant			
NAME (PLEASE PRINT) NAME (PLEASE PRINT)	> 1					
SIGNATURE KOULUNE KIL	out-	3/19/2008				

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# State of Utah DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER Executive Director

**Division of Oil Gas and Mining** 

JOHN R. BAZA Division Director

March 25, 2008

Kaylene Gardner EOG Resources Inc. 1060 East Hwy 40 Vernal, UT 84078

43 013 33546

Re: APDs Rescinded at the request of EOG Resources Inc.

Dear Ms. Gardner:

Enclosed find the list of APDs that you requested to be rescinded to EOG Resources Inc. No drilling activity at these locations has been reported to the division. Therefore, approval to drill these wells is hereby rescinded, effective March 21, 2008.

A new APD must be filed with this office for approval <u>prior</u> to the commencement of any future work on the subject locations.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,

Diana Mason

**Environmental Scientist** 

cc: Well File

Bureau of Land Management, Vernal



Natural Cotton 68-05 Natural Cotton 76-13 Natural Cotton 73-13 Chapita Grove 2-28 Chapita Grove 1-28 Wells Draw 18-05GR